

# N.J. Governor's School students explore new ideas in science and engineering



Jason Gaughan, center, from Rancocas Valley High School, carries the rocket he and his group used in their presentation at the Governor's School, held at Drew University, by presenting their projects. Madison, NJ 8/1/14 (Robert Sciarrino/The Star-Ledger)

*Robert Sciarrino*

By [Neil Haggerty](#) | [The Star-Ledger](#)

**MADISON** — Drew University's new president wasted no time in setting a high bar for a discussion with high school students at the New Jersey Governor's School in the Sciences final symposium.

After telling the 85 science students about Adam Riess, a Nobel Prize winner and a 1987 Governor's School alum, Drew President MaryAnn Baenninger challenged her audience with a question.

"Which one of you is going to be a Nobel Prize winner?" she said at the Aug. 1 symposium.

The Governor's School of New Jersey was established in 1983 as a tuition-free summer learning and research experience for talented students. The state contributes \$50,000 to each program, each host school budgets about \$300,000 and money from corporate donors covers the rest, according to officials at the Office of the Secretary of Higher Education.

New Jersey offers two Governor's School programs: the three-week sciences school at Drew and the four-week engineering and technology school at Rutgers University, which concluded its 2014 session on July 25.

After weeks of college level coursework and independent research, students at the Governor's School in the Sciences were ready to present their findings. There were those who studied the impact of stressors on animals, students who studied cognitive illusions, a group of budding rocket scientists and still others.

The group that studied cognitive illusions analyzed the impact of false memory and perceptions on their peers.

They asked the 73 other Governor's School students to review a list of words relating to medicine and try to remember them later.

When the results came in, most of the students thought they remembered seeing the word "doctor."

But that word wasn't on the list. Some of the smartest high school science students in the state were fooled by an illusion.

"I really like that we got to work with people as opposed to chemical and animals," said Kendall Liang, a rising senior at West Morris Mendham High School. "I think it's interesting that these illusions can actually happen in everyday life and we just don't notice them all the time."

The application process for students like Liang is competitive. More than 350 students were nominated to participate in the sciences program, 85 of whom were selected, Cassano said.

About 300 students were nominated for the engineering and technology program, and 88 were selected to participate, said Jean Patrick Antoine, the program's assistant director.

Some participants called the experience life-changing.

Rachel Rizzo, a rising senior at Cherokee High School in Marlton, said she thought she wanted to be a biomedical engineer before she started the program at Rutgers, but her classes and research have led her to instead choose to study mechanical engineering.

Rizzo's group developed a walking cane for the blind and hearing impaired. The cane detects obstacles on the ground with an ultrasonic sensor and vibrates to alert its user.

"I honestly think I learned more about science and technology in the four weeks than what I learned in my high school classes," Rizzo said.

And Roland Fong, a rising senior at Middlesex County Academy for Science, Mathematics & Engineering Technologies, said the ability to work with other students interested in engineering and technology at the Rutgers program was one of the best parts of the experience.

"I found people with similar interests and it made us all more social," Fong said. "It is a great opportunity for students who want to pursue ideas."